



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,330	07/03/2003	Erin M. Johnson	IOI-439	5059
37235	7590	08/11/2004	EXAMINER	
ZIMMER TECHNOLOGY, INC. 150 N. WACKER DRIVE SUITE 1200 CHICAGO, IL 60606			ISABELLA, DAVID J	
			ART UNIT	PAPER NUMBER
			3738	

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

4W

Office Action Summary	Application No. 10/613,330	Applicant(s) JOHNSON, ERIN M.	
	Examiner DAVID J ISABELLA	Art Unit 3738	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11-16 and 20 is/are rejected.
- 7) ☒ Claim(s) 9, 10 and 17-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2,6,7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2, there is no structural nexus between the locking mechanism and the components.

Claims 6 and 7, there is no antecedent support for "the locking component". Moreover, there is no structural nexus between the function and the components of the claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2,6,8,11,16 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by either of Ramos (4380090) or Huebner (5263988).

Ramos and Huebner discloses an acetabular prosthesis, comprising: an acetabular shell; an acetabular articulating component having a hemispherical shape. a base portion, and an inner surface forming a partial spherical cavity adapted to receive

a femoral ball, the articulating component being connectable to the shell; and an acetabular constraining component having a spherical surface, wherein the constraining component is connectable to the base portion of the articulating component so the spherical surface is continuous with the inner surface to enlarge the spherical cavity to be more than a hemisphere to capture the femoral ball. See figure 4 of Huebner and figure 1 of Ramos.

Claim 2, see locking mechanism 16 of Huebner and locking mechanism 30 of Ramos.

Claim 6 the locking mechanism 16 of Huebner and locking mechanism 30 of Ramos snappingly engages to connect the constraining component to the articulating component.

Claim 8 is similar in scope to claim 1 except for the specifics to the locking mechanism which is met by Ramos and Huebner, respectively.

Claim 11, see annular flat surfaces and partial ring configuration in figure 1 of Ramos.

Claim 16 is essentially identical, in scope, to claim 1 wherein the claim further defines the constraining component as having one side formed with a spherical surface. Examiner is interpreting the scope of the claim as the inner surface of the ring to be readable on the limitation of "one side with a spherical surface that is continuous with the inner surface of the acetabular insert.

Claim 18, see locking mechanism 16 of Huebner and locking mechanism 30 of Ramos.

Claim 19, the function of the constraining component 21 of Huebner and 60 of Ramos is designed to capture the ball in the spherical cavity.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8,11,12,14,16 and20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mullers (5133763) in view of Spotorno et al (5458649).

Mullers discloses an acetabular prosthesis, comprising: an acetabular articulating component having a hemispherical shape. a base portion, and an inner surface forming a partial spherical cavity adapted to receive a femoral ball, the articulating component; and an acetabular constraining component having a spherical surface, wherein the constraining component is connectable to the base portion of the articulating component so the spherical surface is continuous with the inner surface to enlarge the spherical cavity to be more than a hemisphere to capture the femoral ball. See figures of Mullers. Mullers lacks only the outer shell to meet the three part acetabular system as claimed. Mullers identifies that the cup shaped element 1 may be made of synthetic materials as well as metals and ceramics. To form the cup shaped element of a polymer, eg

Art Unit: 3738

UHMWPE, in combination with a outer ceramic or metal shell to reduce the cost and offer the surgeon more design flexibility to match the prosthesis to the existing bone structure would have been obvious to one with ordinary skill in the art as shown by Sportorno, et al. The resulting modification would yield a three subcomponents system including an outer shell, inner polymer hemispherical articulating component and a constraining component.

Claims 2 and 20, see column 2, lines 4-19.

Claims 3,5,14, see column 2, lines 31-40.

Claim 4, see column 2, lines 41-60.

Claim 8, see rejection to claim 1 supra.

Claim 11, see figure 2.

Claim 12, see figures 2-5.

Claim 16, see figure 2.

Claims 6,7,13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mullers as applied to claims 1 and 8 above, and further in view of Sportorno et al and Bolesky et al (5002577). While the locking mechanisms is a snap-type/screw-type engagement, separate snap-type and screw –type mechanisms are well known as shown by Bolesky et al and Sportorno, et al. Examiner contends that the locking mechanisms, snap-types and screw-types and it's combination are essentially equivalent means for connecting subcomponents of a system into an integral unit. It would have been obvious to one with ordinary skill in the art to use any know form of

locking systems including screw-types and snap-types for connecting the subelements of the acetabular system of Mullers depending on engineering and surgical considerations.

Claims 3,4,5,14,15 are rejected under 35 U.S.C. 103(a) as being unpatentable over either of Ramos or Huebner as applied to claims 1 and 8 above, and further in view of Spotorno et al (5458649).

Each of Ramos and Huebner discloses an acetabular system comprising an outer shell, a hemispherical component and a constraining component to capture the femoral ball in combination with the hemispherical component. The locking mechanism in each instance is designed to lock the constraining component to the outer shell. Spotorno et al shows a system similar to that of Ramos and Huebner wherein the constraining component is locked to the hemispherical component with cooperating projections and passages wherein the projections snappingly engage the passage. To attach the constraining component of either of Ramos or Huebner with cooperating projections and passages once the hemispherical component is threaded into the outer shell would have been obvious from the teachings of Spotorno et al.

Claims 3 and 14, see element 5, 7 and 14.

Claims 4, 5 and 15, as modified, Huebner and Ramos would locking mechanisms that snappingly engages to connect the constraining component to the articulating component.

Claims 7 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over either of Ramos or Huebner as applied to claims 1 above, and further in view of Bolesky et al (5002577). While the locking mechanisms is a snap-type engagement, screw – type mechanisms are well known as shown by Bolesky et al. Examiner contends that the locking mechanisms, snap-types and screw-types are essentially equivalent means for connecting subcomponents of a system into an integral unit. It would have been obvious to one with ordinary skill in the art to use any know form of locking systems including screw-types and snap-types for connecting the subelements of the acetabular system of either of Ramos or Huebner depending on engineering and surgical considerations.

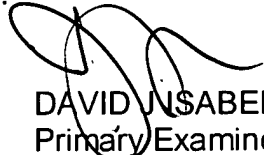
Allowable Subject Matter

Claims 9,10,17-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID J ISABELLA whose telephone number is 703-308-3060. The examiner can normally be reached on MONDAY-FRIDAY.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CORRINE MCDERMOTT can be reached on 703-308-2111. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DAVID INSABELLA
Primary Examiner
Art Unit 3738

DJI
August 3, 2004